Calibration Quick Facts: 
Lawn Application Equipment

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How do you know if your spreader or sprayer is delivering the right amount of material? How do you know how wide your swath width should be? Which kind of spreader should I use? Here are a few quick facts to help you apply lawn care products effectively, and help you detect a problem with your equipment or its settings before it causes an unsightly or expensive problem.

Calibrating a spreader before applying:
• Raise spreader so wheels turn freely
• Fill half-full with granules
• Turn drive wheels to simulate spreading
• Number of wheel turns to simulate 1000 sq. ft. = 

\[
\text{wheel diameter (in) \times \text{swath width (in)}}
\]
• For spinner spreaders, catch granules above spinner or contain with plastic
• Collect the output & weigh it
• Result is lbs. applied per 1000 sq. ft.
• Adjust settings & repeat if needed

Checking a spreader when applying:
• Load & weigh the spreader
• Apply to 1000 sq. ft, then reweigh
• Difference is lbs. applied per 1000 sq. ft.

Swath for spinner spreaders:
• Place shallow boxes (like a pop flat) in a line, spaced every foot or two (see illustration)
• Spread granules perpendicular across the boxes, 3 times in the same direction
• Put granules from each box in a separate vial or jar, line them up in a row
• The effective swath width is the distance between the outer boxes that caught half what the center box caught
• The pattern should be symmetrical and smoothly taper from the most in the center to nothing at each end.
• Example, 12’ swath: boxes 6 feet from center each have \( \frac{1}{2} \) what the center has.
• For safety, discard or label & lock-up boxes or vials

Swath for a drop spreader:
• Spreader width (this is the simplest)

Drop spreaders vs. spinner spreaders:
• Drop spreaders calibrate easier, have more precise placement, create less dust drift
• Spinner spreaders spread wider to cover areas quickly, but changes in walking speed also change swath width

Using 100% overlap for granules & sprays:
• For spreaders, set output to 50%: full rate is achieved by overlapping swaths
• Overlap half of each swath with the previous swath
• Example, 4’ swath: cover 2’ of previous swath and 2’ of new ground

Calibrating a pump-up sprayer for land areas:
• Clean out sprayer, refill with clean water
• Spray 1000 sq. ft., overlapping each swath by half (called 100% overlap)
• Measure water needed to refill sprayer
• Result is gallons applied per 1000 sq. ft.

Calibrating a pump-up sprayer for shrubs/trees:
• Clean out sprayer, refill with clean water
• Thoroughly spray plant until water drips from leaves (“run-off”) or until wet—read pesticide label to choose which
• Measure water needed to refill sprayer
• Result is gal. of spray needed per plant